4515

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. ..... Office No. .....

LOCALITY

State Hydr S.E. Alaska

General locality Chatham

Locality Strait. Spanish

do to Table Bay

1925

CHIEF OF PARTY

F.B. Stems

LIBRARY & ARCHIVES

DATE .....

B-1870-1 (1)++

4515

4515

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: S.E. Alaska

11—5613

DESCRIPTIVE REPORT.

Wire Drag & Hydrographic Sheet No. 24515

LOCALITY:

Chatham Strait ~~(inshore)~~

~~From Cape Decision to Table Bay~~

Spanish Is. to Table Bay

1925

CHIEF OF PARTY:

F.B.T. Siems

DESCRIPTIVE REPORT

to accompany

Wire Drag and Hydrographic Sheet of

Chatham Strait (inshore) from Cape Decision to Point Crowley

- 1925 -

EXTENT: This sheet covers the inshore dragging of Chatham Straits from Cape Decision to Point Crowley. It joins wire drag sheet Register No. at Cape Decision on the south and other sheets of this season on the north and west limits (Sheets 3 and 4). The area except close inshore was proved to a minimum depth of 80 feet.

An attempt was made to drag a channel into Howard Cove but this was not accomplished due to kelp and the narrowness of the channel.

The whole area was covered by sounding lines and soundings were taken as close to shore as possible. Considerable kelp was found along the coast and too thick in most places for a boat to get through without cutting it. Howard Cove was developed as a temporary anchorage for small boats. It is not recommended for boats drawing more than six feet of water. The channel is narrow and partly covered with kelp and should be navigated with extreme caution. The channel is approached from the southwest on the heading 50° (true) to pass 50 yards off the end of the bare rocky islets on the south side of the channel. When abeam of these islets change course to the right keeping in the path of the least kelp. During the spring and on that account is well defined. little or no kelp is present in the channel itself. The entrance is endangered by two rocks, one which bares at half tide lies 870 meters (approx. 1/2 mile) West (true) from the northern end of the bare rocky islets. The other, a sunken rock having 8 feet of water over it at M.L.L.W. lies 180 meters 51°(true) from the northern end of the bare rocky islets. The southern part of the Cove affords good anchorage and protection from all directions except the northwest. The northwest entrance is foul and breaks in heavy weather. The northern part of the Cove is foul and covered with kelp patches. The ship anchored in 16 to 17 fathoms off Howard Cove about one mile S. W. of signal SIGH on several occasions and found the bottom was apparantly smooth and rocky causing the anchor to drag.

Crowley Bight. The ship had no occasion to anchor here during the season. Inside the 20 fathom curve the bottom is hard and rocky and probably not suitable as an anchorage.

Practically the entire bottom of area adjacent to the coast is rocky or hard, and not suitable for anchorage. Table Bay, which is shown on adjoining sheet, is the nearest anchorage of any value.

DANGERS AND SHOALS: Besides the rocks mentioned above in Howard Cove, the following shoals and rocks were located:

A 5 fathom shal, marked by kelp, lies 1.3 miles (nautical) N 67°W (true) from Cape Decision.

A rock previously known, which is bare at all stages of the tide except very high water, lies 1933 meters (approximately 1 mile nautical) S 42°E from Point Crowley Light. This rock has deep water all around it.

Shoal 1185 meters, WSW from Signal RIT. Least water 4 fathoms 5 feet. Position 2, "G" day wire drag record.

Shoal 885 meters S.W. from Signal MAC. Least water 5 fathoms 5 feet. Position 34, "j" day, Volume 2.

Shoal 580 meters, West from signal ROT. Least water 5 fathoms 2 feet. Positions 74-75 "g", Volume 2.

Shoal 1600 meters, West from Signal ONE. Least water 6 fathoms 4 feet. Position 7, "j" day, Volume 2.

SPECIAL NOTES: (Wire-Drag) "A" Day. The first six positions are not plotted as there was a ground at the sixth position near N, 9¼ fathoms. This area with the exception of a narrow strip closer inshore was covered again at a later date.

"C" Day. Position No. 1 not plotted as one of the signals was beyond the limits of this sheet. It is not necessary as there is ample overlap without it. The limits of wire drag on adjoining sheet No. 3 is shown by a dotted pencil line.

"E" Day. Position 26 Tide curve is plotted on position 26 instead of 27 in error. This lessens the depth 1 foot for a very small area and was not corrected because it would necessitate erasing other lines.

"G" Day. Not plotted as the same area was covered later. Fog appeared shortly after setting out drag on two occasions.

"H" Day. Position 27 to 31 inclusive are not plotted as they were take while dragging over an area covered to the same or greater depth.

GROUNDS: Position 6 "A" ground 700 meters west from Signal ROT. Least water 9 fathoms 2 feet. This shoal was not dragged over on account of it being near the shore and sufficient water to the westward for the passage of ships.

Position 43 "A" ground 1240 meters west from signal HORN. Depth of drag 93 feet. Least water by sounding near.

near ground 17 fathoms. This shoal was later dragged over by an effective depth of 40 feet. 16½ fathoms should be charted at ground.

Position 12 "B" ground 180 meters NNE from Signal SIGH. Drag depth 19 feet. Least water 1 fathom 3 feet. Position ~~16~~ 1B wire drag sounding record. This shoal was not dragged over as it is near a reef.

SPECIAL NOTES: (Hydrography) Position 73 "B" transferred from boat sheet as the fix given would not plot.

"D" day. See Sheet 3 Volume 2 page 20-22 inclusive, plotted on this sheet.

"E" day. See Sheet 3 Volume 2 page 26-36 inclusive, plotted on this sheet.

Position 1 "E" to 4 "E" plotted from boat sheet.

Position 6 "E" to 9 "E" not plotted as one signal in the fix is not on this sheet. (See note in sounding record.)

Position 1 "F" to 3 "F" plotted from boat sheet.

Position 12 "F" and 13 "F". No signal ROCK on sheet but rock used is 250 meters from Signal ROT, position agreeing with that shown on boat sheet.

Position 30 "F". Rock used is 880 meters west from Signal SIGH.

Position 41 "F" transferred from boat sheet.

Position 7 "G". Rock used as signal 250 meters west from Signal ROT.

Position 21 "G" transferred from the boat sheet.

Position 29 "E" to 58 "E" of Sheet No. 4 Volume I, page 29 to 55 plotted on Sheet No. 2.

Position 25 "f" to 28 "f" of Sheet No. 4 Volume I, page 38 plotted on Sheet No. 2.

As the work is rather congested in the vicinity of Signal SIGH a tracing of the signals of that locality was made and positions replotted on the tracing to aid cartographer in inking soundings.

STATISTICS FOR SHEET NO. 2 (Hydrography)

DATE 1925		LETTER	POSITIONS	NO. SDGS.	MILES STAT.	VOL. AND SHEET.
June	12	e	30	129	2.0	Sheet 4 Vol. I
	16	f	4	4	0.5	Sheet 4 Vol. I
	24	A	45	109	6.3	Sheet 4 Vol. I
	25	B	76	173	11.4	Sheet 4 Vol. I
	26	C	34	111	4.5	Sheet 4 Vol. I
July	2	D	11	31	2.0	Sheet 3 Vol. II
	15	E	67	114	8.0	Sheet 3 Vol. II
	16	F	52	119	9.4	Sheet 3 Vol. II
	17	G	76	235	13.6	Sheet 3 Vol. II
Aug.	13	H	9	9	0.7	Sheet 3 Vol. II
	31	J	45	86	4.0	Sheet 3 Vol. II
Sept.	2	K	17	69	1.0	Sheet 3 Vol. II
		12	466	1189	63.4	

METHODS OF SURVEY: The sounding was done with the launches Scandinavia and wire-drag Tender No. 1. Hand sounding machines were used for soundings over 15 fathoms and hand lead lines for shoaler depths. The wire drag was done with the EXPLORER and Scandinavia as towing vessels and wire drag Tender No. 1 for tender. A general reduction of 2 feet for lift was applied in reducing drag depths except where tests indicated greater lift. Bridles were not used on the towlines except for the short drag into Howard Cove.

PLOTTING & RECORDS: The launch positions were pricked through the protective tracing cover on the smooth sheet and the towline connecting launch position and large buoy is indicated by a light

pencil line. This method of plotting is considered necessary for absolute accuracy and also useful in shaping drag curves, which are generally tangent to the towline. In using the buoy spacers for drawing curves, for normal dragging, the celluloid strip edge of the spacer is then made to pass through the four points namely the two launch positions and the two large buoy positions.

The end launch positions were copied into the guide launch record. It was intended to obtain positions on both launches simultaneously, generally every five minutes, this could not always be done. The numbers corresponding to the guide launch positions were indicated on the sheet. These of the end launch were retained in copying but were not shown on the smooth sheet. To differentiate between the end launch and guide launch positions the end launch positions are bracketed and marked E.L. in red.

Respectfully submitted,

Henry Ward Tyler,
Lieutenant (j.g.)

REVISED AND APPROVED:

F. B. T. Siems,
Commanding Officer,
U. S. S. EXPLORER.

STATISTICS FOR WIRE DRAG SHEET NO. 2 (Cape Decision to [illegible])

Date 1925	Letter	Positions	No. sdgs.	Miles of Drag.	Vol.	Vessels
July 17	A	45		7.0	1	Scandinavia
		36			1	Explorer
		3	3			Tender # 1
July 24	B	13		1.0	1	Scandinavia
		15			1	Explorer
		6	6			Tender
July 30	C	49		9.6	1	Scandinavia
		37			1	Explorer
Aug. 5	D	36		4.5	1	Scandinavia
		26			1	Explorer
Aug. 6	E	49		4.7	1	Scandinavia
		22			1	Explorer
Aug. 7	F	49		9.7	11	Scandinavia
		30			1	Explorer
Aug. 11	G	11		2.0	11	Scandinavia
		5			1	Explorer
Aug. 12	H	69		12.5	11	Scandinavia
		77			1	Explorer
	8	576	9	51.6		

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-DRM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON December 19,1927.

SECTION OF FIELD RECORDS

Report on Hydrographic and Wire Drag Sheet No. 4515

Chatham Strait - Spanish Islands to Table Bay

Surveyed in 1925.

Instructions dated Feb. 14, 1925 (EXPLORER)

Chief of Party, F. B. T. Siems.

Surveyed by F.B.T.S., R.D.Horne, F.E.Joekel.

Protracted and soundings plotted by G.R.Shelton.

Verified and inked by R. L. Johnston.

1. The records conform to the requirements of the General Instructions with the following exceptions:

   a. In the wire drag work the end launch data was entered immediately below the guide launch data instead of in the third and fourth columns of the right hand page of the record, which is the accepted practice.

   b. Courses are noted on but two days.

   c. Beginnings and endings of lines are not given.

   d. Considerable confusion was caused by the work for this sheet being mixed up with the records of H. 4516 and H. 4517a. In order to avoid further confusion the work from 4516 and 4517a pertaining to this sheet was transcribed in another volume and added to the records for 4515, making it possible to file all the work for this sheet together.

2. The methods and character of the survey conform to the requirements of the General Instructions.

3. The plan and extent of development conform to the specific instructions except that additional development should have been done in the vicinity of Point Heward particularly around the 6 2/6 fathom spot about 700 meters S x E of △ How. There are other indications of shoals in the vicinity of Heward Cove and to the northwest of Cape Decision that should be investigated. These will be mentioned hereafter.

4. The extent of the drag work satisfies the specific instructions. The main steamer lane seems to be adequately covered. It is assumed that the work was not carried closer inshore owing to the extensive kelp patches.

5. The depth of the drag work conforms to the specific instructions. The depths are for the most part well over 85 feet and in practically all cases except close inshore and in close proximity to shoals the effective depths are at least 70 feet. This is considered quite adequate for this locality. Of course the drag strip in Haward Cove does not meet the effective depth requirements, but since this Cove is only recommended for small boats there is no need to drag it deeper than 22 feet.

6. A clearance depth was obtained over all important shoals discovered with the drag sufficient for surface navigation except the 6 4/6 fathom spot off Pt. Crawley about 1050 meters S x E of △ Ape. A 40 foot drag grounded here (position 11C) and ten minutes later the drag slipped over the shoal. The spot was apparently not investigated. However, the hydrographic party obtained 45 feet (not plotted - position 36E) here, showing that a shoal exists here. In accordance with the usual office practice, a split will be shown around the 6 4/6 spot. The area should be further investigated.

7. The overlaps within the sheet are generous.

   The junctions with W.D. 4517[b] and W.D. 4516 are satisfactory. The drag work might have been carried closer to the rock awash about 1 mile southwest of Pt. Crawley, but this is considered enough of a danger to keep steamers a sufficient distance away.

   The junctions with H. 4516 (hydrographic) and H. 4517[a] are satisfactory.

   The junction with H. 4326 is satisfactory except that additional soundings are necessary around Cape Decision.

8. The field plotting was completed to the extent prescribed in the General Instructions. The wire drag work was well plotted. The hydrographic work, however, had many positions numbered wrong and the time interval not always adhered to. A rather serious defect in the field plotting lies in the fact that the day letters as to color and caps did not always conform to the sounding records. This always causes confusion in the handling of the sheet as soundings cannot readily be referred to the proper place in the records. These have all been made to agree.

9. Additional work will be required as mentioned above as well as in the following places:

a. Between Cape Decision and Pt. Haward the drag work should be extended closer inshore if not prevented by kelp. If this is not possible then the following hydrographic work should be done:

(1) A development of the 4 5/6 fathom shoal in lat. 56° 00 1/2', long. 134° 10 1/4'.

(2) A development of the 5 1/2 fathom sounding in lat. 56° 01', long. 134° 11'.

(3) A development of the 5 5/6 fathom sounding in latitude 56° 01 3/4', long. 134° 11 1/4'.

(4) If deemed sufficiently important, a closer development of the entrance to Haward Cove and an extension of the hydrography toward the northern shore unless prevented by kelp.

10. Attention is called to the fact that considerable confusion exists in the vicinity of Pt. Crawley due to the plotting of the hydrography and the wire drag on the same sheet. With the vari-colored drag strips it is difficult to distinguish one from the other. Combining surveys in this manner may be satisfactory where the drag work is practically of one depth and no subdivisions exist, but where, as in the present case, the drag depths range from 40 to 100 feet with many drag strips subdivided for different depths, such treatment should be discouraged.

11. Character and scope of field operations - very good.
Field drafting - good.

12. Reviewed by A. L. Shalowitz, December, 1927.

Approved:

_____

Chief, Section of Field Records (Charts)

_____

Chief, Section of Field Work (H. & T.)

Hydrographic Sheet No 4515

The work on this sheet consists of both wire drag and hydrography. When the curves are inked in color and soundings from the adjoining sheet are shown in color there are so many colored lines and figures on the sheet that it is hard to decipher.

Drag Work.

Within the limits of the drag work on this sheet no splits occur. There is a split at the junction of this sheet with H.D. 4516 and H.D. 4517 Lc, at the rock awash, about a mile south west of Pt. Crowley. (See review).

On "C" day part of the drag was set at fifty feet by mistake, but was later covered by a deeper depth.

In addition to the grounds which are listed in the descriptive report there are two other grounds. One of these is at pos 11 C, where the drag grounded with an effective depth of forty feet and slipped over. The hydrographic party obtained a sounding of forty five feet at about this point. There is another ground at pos 2B, which the record states is caused by kelp.

Due to revision of the tide reducers in the office, many of the effective depths and most of the tide curves, had to be revised. No changes were made on depths over eighty five feet.

The wire drag work has been well plotted.

Hydrography.

The records for the hydrography seem to have been badly confused. Some of the soundings on this sheet are recorded in the records of Hyd. 4516 and Hyd 4517a "D" day and "E" day are in volume No 2, Hyd 4517a The line from pos 20 f to pos 31 f and the line from pos 29e to pos. 58e are in volume No1, Hyd 4516. Courses are noted on two days only and beginings and endings of lines are not described.

The protracting was accurately done but on several lines the positions had been numbered wrong and the error carried throughout the line. The soundings were not always spaced to conform with the time record.

R.L. Johnston

Form 537
11—5812

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

4515

HYDROGRAPHIC TITLE SHEET
AND WIRE DRAG

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4515

4515

State . . S. E. Alaska . . . .

General locality . . Chatham Strait . . . .

Locality . . ~~Point Crowley to Cape Decision~~ Spanish Is. to ~~Pt. Crowley~~ Table Bay . . . .

Chief of party . F.B.T.Siems . . . .

Surveyed by . F.B.T.Siems, R.D.Horne and F.L.Joekel. . . .

Date of survey . July 17 to Aug. 12 1925. . . . .

Scale . . . 1 : 20 000 . . . .

Soundings in fathoms . . . .

Plane of reference . M.L.L.W. . . . .

Protracted by . G.R.Shelton Soundings in pencil by G.R.S. . .

Inked by (drag work G.R.S.; soundings RLJ) ~~G.R.S.~~ . . . Verified by RLJ . . . .

Records accompanying sheet (check those forwarded):

Des. report, 1 Tide books, ... Marigrams, 2 Boat sheets, 2 Sounding books, 3 Wire-drag books, ... Photographs.

Data from other sources affecting sheet . . . .

Remarks: 3 Wire-drag books consist of two Vol. of Guide Launch and one of End Launch.

WWB

June 5, 1926

~~Division of Hydrography and Topography:~~

Division of Charts:

Tide reducers are approved in
9 volumes of sounding records for

HYDROGRAPHIC SHEET NO. 4515

Locality: S. E. Alaska

Chief of Party: F. B. T. Siems in 1925

Plane of reference is MLLW
6.5 ft. on tide staff at Table Bay
10.9 ft. " " " " Howard Cove

For reduction of soundings, condition of records satisfactory
except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A. M. or P. M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

G Rude

Chief, Division of Tides and Currents.